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10/564,903	01/17/2006	Craig F. Farrill	1547USWO	7166
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GATES & COOPER LLP HOWARD HUGHES CENTER 6701 CENTER DRIVE WEST, SUITE 1050 LOS ANGELES, CA 90045			EXAMINER	
			HUYNH, NAM TRUNG	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/564,903

Applicant(s)

FARRILL ET AL.

Examiner

NAM HUYNH

Art Unit

2617

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 January 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 and 43-58 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 and 43-58 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-940)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 1/25/10 has been entered.

Response to Amendment

This office action is in response to amendment filed 1/25/10. Claims 1 and 43 have been amended.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 1 recites inter alia an **apparatus** that comprises a

cellular network and a real time exchange. The subject matter is indefinite because it is not logical for an apparatus to comprise a cellular network. Accordingly for examination purposes, the claim will be treated as a **system** for providing group voice services in a cellular network.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claims 1-7, 9, 12, 43-49, 51, and 54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sanders, III et al. (US 6,138,011) (hereinafter Sanders) in view of Edwards (US 2004/0228292).

Regarding claims 1 and 43, Sanders teaches a system for providing group voice services in a cellular network, comprising:

a cellular network (existing cellular network) for making calls between handsets, wherein the calls are initiated by call setup and in-band signaling (call request signal containing control information such as ID) within the cellular network and voice frames for the calls are switched by at least one mobile switching center between the handsets across bearer paths in the cellular network (MSC of cellular network switches calls between handsets in the cellular network) (column 2, lines 47-53; column 3, lines 5-28, 58-67; figure 1); and

a real-time exchange (dispatch controller) that interfaces to at least one mobile switching center in the cellular network to provide group voice services (group calls) therein (figure 1, dispatch controller is connected to the MSC),

wherein the group voice services provide a full-duplex Push-to-Conference (P2C) session (full duplex communication links) between an initiator (originating device) and one or more other participants (target wireless devices) (column 4, lines 34-67; column 5, lines 1-10),

wherein the P2C session comprises a full-duplex conference call (column 4, lines 34-67; column 5, lines 1-10),

both the real-time exchange and the handsets participating in the P2C session communicate with each other using the call setup and in-band signaling within the cellular network (dispatch controller interfaces MSC which processes call requests in accordance with known techniques) (column 4, lines 47-65),

such that at least one mobile switching center routes an originating leg of the group voice services from an originating handset to the real-time exchange (MSC routes received call requests to dispatch controller) (column 4, lines 1-10),

the real-time exchange initiates one or more terminating legs of the group voice services to one or more terminating handset through at least one mobile switching center (dispatch controller establishes communication links with target wireless devices via the MSC) (column 4, lines 47-65), and

the real-time exchange switches the voice frames for the group voice services from the originating handset to the terminating handset across the bearer paths (dispatch controller controls the switching for the group call) and through at least one mobile switching center that switches the voice frames for both the calls and the group voice services in the cellular network (MSC controls full duplex radio channels to be used by target devices for the group call) (column 4, lines 47-67).

Sanders does not explicitly teach that the system is capable of providing a half-duplex Push-to-Talk (P2T) session that comprises a half-duplex dispatch call and that a half-duplex P2T session is capable of being upgraded to the full-duplex P2C session by invoking "Upgrade to Conference" on one of the handsets participating in the P2T session. Edwards discloses a method and apparatus for providing full duplex dispatch (title). Edwards teaches that a dispatch communications system is capable of both half and full duplex dispatch calls (paragraph 17) and that a dispatch communication system controller may provide the necessary channel resources to support a full duplex call (P2C session) (paragraph 12) and that a user who establishes a half-duplex call may

upgrade to a full duplex call by pressing one or more keys or a menu button ("Upgrade to Conference" initiation) on the mobile device (paragraph 11). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Sanders to also be able to support half-duplex calls, as taught by Edwards, in order to gain benefits that are readily known in the art for half-duplex calls such as the ability for one user to immediately connect with another user or a group of users and have a private conversation with the press of one button. It would have also been obvious to one ordinary skill in the art at the time the invention was made to further modify the invention of Sanders to allow users to upgrade a half duplex call to a full duplex call, also taught by Edwards, in order to allow utilize the quick call set-up provided by half duplex PTT calls while allowing users to take advantage of full duplex operation if desired.

Regarding claims 2 and 44, Edwards teaches the participants comprise one or more contacts, one or more groups of contacts, or a subset of a group of contacts (paragraph 21).

Regarding claims 3 and 45, Edwards teaches the initiator initiates the full-duplex P2C session by invoking "Push-to-Conference" on their handset (paragraph 21).

Regarding claims 4 and 46, Edwards teaches the initiator upgrades an established half-duplex Push-to-Talk (P2T) session to the full-duplex P2C session by invoking "Upgrade to Conference" on their handset (paragraphs 11, 16; activating a key or menu item for full duplex dispatch).

Regarding claims 5 and 47, Sanders teaches the initiator's handset signals the real-time exchange via the cellular network, and the real-time exchange initiates and manages the full-duplex P2C session (column 3, lines 56-67; column 4, lines 1-18; call request signal reaches dispatch controller through cellular network and dispatch controller sets up full duplex communication link with originating device).

Regarding claims 6 and 48, Sanders teaches the real-time exchange causes the cellular network to perform call setup with the other participants for the full-duplex P2C session, and the real-time exchange initiates and manages the full-duplex P2C session (column 4, lines 47-65; column 5, lines 1-10; dispatch controller transmits call setup to target wireless devices through MSC and controls the call).

Regarding claims 7 and 49, Sanders teaches the real-time exchange causes the cellular network (MSC) to signal the other participants to join the full-duplex P2C session (column 4, lines 47-67; MSC transmits call request signals to target wireless devices).

Regarding claims 9 and 51, Edwards teaches the real-time exchange mixes audio streams from the initiator and other participants, and delivers these mixed audio streams to the initiator and other participants (paragraphs 12, 18).

Regarding claims 12 and 54, Edwards teaches initiator can downgrade the full-duplex P2C session to a half-duplex P2T session (paragraph 11).

7. Claims 8, 16, 50, and 58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sanders, III et al. (US 6,138,011) (hereinafter Sanders) in view of Edwards (US 2004/0228292) as applied to claims 1 and 43, and further in view of Boyle et al. (US 6,606,305) (hereinafter Boyle).

Regarding claims 8 and 50, the combination of Sanders and Edwards teaches the limitations set forth in claims 1 and 43, but does not explicitly teach that the other participants invoke "Join Conference" on their handsets to join the full-duplex P2C session. Boyle discloses an apparatus, method, and system for automatic telecommunication conferencing and broadcasting. Boyle teaches that an end user decides to join or not join a session by entering a code on their handset (column 6, lines 30-48). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the mobile stations of Sanders and Edwards to allow a recipient of the full-duplex call to indicate whether or not he/she wants to join, as taught by Edwards, in order to increase the flexibility of the system by giving the recipient the capability to accept/reject the full-duplex dispatch call.

Regarding claims 16 and 58, Edwards teaches the limitations set forth in claims 1 and 43, but does not explicitly teach that the full-duplex P2C session continues when the initiator disconnects the call, if at least two of the other participants do not disconnect. Boyle teaches that the conference communication session is maintained until the last two end users terminate the call (column 7, lines 8-19). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Sanders and Edwards to allow the full-duplex call to be

maintained when particular participants disconnect, as taught by Boyle, in order to allow participants who want remain on the conference line to communicate and allow others to join at a later time if desired or needed.

8. Claims 10 and 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sanders, III et al. (US 6,138,011) (hereinafter Sanders) in view of Edwards (US 2004/0228292) as applied to claims 1 and 43, and further in view of Sarkar et al. (US 7,236,580) (hereinafter Sarkar).

The combination of Sanders and Edwards teaches the limitations set forth in claims 1 and 43, but does not explicitly teach the initiator and other participants can choose to remain silent by invoking a "mute" option on their handsets, which causes the handset's microphone to be muted. Sarkar discloses a method and system for conducting a conference call. Sarkar teaches that a passive participant may mute his/her audio output and listen to a conference call. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Sanders and Edwards to allow a participant of the full duplex call to mute his/her audio output, as taught by Sarkar, in order to allow a call conference participant to selectively participate in the conference call while attending to another matter.

9. Claims 11 and 53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sanders, III et al. (US 6,138,011) (hereinafter Sanders) in view of Edwards (US

2004/0228292) as applied to claims 1 and 43, and further in view of Ahmed et al. (US 7,085,364) (hereinafter Ahmed).

The combination of Sanders and Edwards teaches the limitations set forth in claims 1 and 43, but does not explicitly teach the initiator can add or drop participants during the full-duplex P2C session. Ahmed teaches that an initiator of a conference call can drop or add participants during the call (column 7, lines 43-65). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Sanders and Edwards to include the ability to add drop users during the call, as taught by Ahmed, in order to allow the initiator of the full duplex call to more efficiently manage the participants of the call thus increasing the flexibility of the system.

10. Claims 13, 15, 55, and 57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sanders, III et al. (US 6,138,011) (hereinafter Sanders) in view of Edwards (US 2004/0228292), as applied to claims 1 and 43, and in further view of Wilson (US 6,192,119).

Regarding claims 13 and 55, the combination of Sanders and Edwards teaches the limitations set forth in claims 1 and 43, but does not explicitly teach all charges related to the full-duplex P2C session are charged to the initiator. Wilson teaches billing the initiator of the conference call for the call as a known concept (column 1, lines 30-47). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Sanders and Edwards, to include

the capability to charge the initiator of the conference call for all charges, as taught by Wilson, in order to allow the conference initiator to bear the cost of all calls which is better suited for business conferencing or social chat lines.

Regarding claims 15 and 57, the combination of Sanders and Edwards teaches the limitations set forth in claims 1 and 43, but does not explicitly teach the initiator and other participants in the full-duplex P2C session are all charged for usage. Wilson discloses telephone conferencing systems (title). Wilson teaches the billing of all participants of a conference call (column 1, lines 30-47). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Sanders and Edwards to include the capability to charge all participants of the full duplex call, as taught by Wilson, in order to allow all individual participants to bear the costs of their own calls which is better suited for residential or domestic use.

11. Claims 14 and 56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sanders, III et al. (US 6,138,011) (hereinafter Sanders) in view of Edwards (US 2004/0228292), as applied to claims 1 and 43, and further in view of Botterell et al. (US 3,912,874) (hereinafter Botterell).

The combination of Sanders and Edwards teaches the limitations set forth in claims 1 and 43, but does not explicitly teach the full-duplex P2C session is terminated when the initiator disconnects the call, even if the other participants do not disconnect. Botterell discloses a conference arrangement. Botterell teaches that when a conference originator decides to end a conference, all the conferee ports are released

(column 5, lines 40-45). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Sanders and Edwards to allow the full duplex call to terminate when the call initiator disconnects, as taught by Botterell, in order to give full control of the call to the initiator and not allow any communication between the participants to occur without the initiator being connected to the call.

Response to Arguments

12. Applicant's arguments with respect to claims 1-16 and 43-58 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NAM HUYNH whose telephone number is (571)272-5970. The examiner can normally be reached on 8 a.m.-5 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Eng can be reached on 571-272-7495. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/George Eng/
Supervisory Patent Examiner, Art Unit 2617

/Nam Huynh/
Examiner, Art Unit 2617